

University of Groningen

## Lung epithelial cell differentiation in human and mouse

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Propositions related to the thesis  
*Stellingen behorende bij het proefschrift*

**Lung epithelial cell differentiation in human and mouse**

Environment, epigenetics and epigenetic editing

1. Maternal smoking during pregnancy inhibits ciliated cell development and alters the mucus related expression profile in neonatal offspring. (This thesis)
2. Maternal smoking during pregnancy has long term effects on adult offspring lung, affecting multiple signaling pathways related to oxidative stress, lung injury and repair. (This thesis)
3. Down regulation of SIRT1 and FOXO3 in the lungs of smoke exposed mice explains the suggested accelerated aging in COPD. (This thesis)
4. Females try harder to fight the cigarette smoke than males. (This thesis)
5. Aberrant DNA methylation and expression of the master transcription factor drives the dysregulated epithelial cell differentiation in COPD, providing a reprogrammable therapeutic target. (This thesis)
6. Epigenetic editing is a feasible approach to inhibit epithelial mucus production and opens novel therapeutic avenues. (This thesis)
7. It is a big-thinking time! Create big thoughts, enlist others, and start right now!-  
- Mark Tyrrell (therapist and co-founder of Uncommon Knowledge, 2009)
8. Quantitative change is the necessary preparation for qualitative leap. --Hegel's Science of Logic
9. A minimal error or deviation may result in wide divergence. 失之毫厘,谬以千里 《史记·太史公自序》
10. Misfortune might be a blessing in disguise. 塞翁失马焉知非福. 《淮南子·人间训》

Juan Song, May 30, 2016